

520 where all long codes within the GIC group are searched followed by frame timing detection. In the preferred embodiment of the present invention, this is accomplished by searching all 32 long codes belonging to the particular GIC group (GIC1).

The descriptions of the invention, the specific details, and the drawings mentioned above, are not meant to limit the scope of the present invention. For example, in addition to grouping GICs based on synchronization status, GICs may be grouped to indicate other communication system parameters. Additionally, although the preferred embodiment was described utilizing a single GIC for all synchronized base stations, if the number of synchronized base stations within the communication system exceeds 32, then multiple GICs can be utilized to identify synchronized base stations. It is the intent of the inventors that various modifications can be made to the present invention without varying from the spirit and scope of the invention, and it is intended that all such modifications come within the scope of the following claims.

What is claimed is:

1. A method for transmitting information regarding a synchronization status of a base station, the method comprising the steps of:

determining if the base station is operating in a synchronized mode or an unsynchronized mode to produce a synchronization determination; and

transmitting a group identification code (GIC) to a remote unit, wherein the GIC is chosen based on the synchronization determination such that if the base station is operating in the synchronized mode a first GIC is transmitted, otherwise a second GIC is transmitted to the remote unit if the base station is operating in the unsynchronized mode, wherein the GIC indicates a spreading code group to which a spreading code utilized by the base station belongs.

2. The method of claim 1 further comprising the steps of: choosing the spreading code based on the synchronization determination; and

spreading modulated data with the spreading code.

3. The method of claim 2 wherein the step of choosing the spreading code further comprises the step of choosing the spreading code wherein the spreading code is a time shifted version of a single spreading code if the base station is synchronized, otherwise the spreading code is a spreading code chosen from a plurality of spreading codes.

4. The method of claim 1 wherein the step of transmitting the GIC comprises the steps of:

periodically masking a first spreading code with a second spreading code; and

transmitting the first or the second GIC during a time period when the first spreading code is masked by the second spreading code.

5. A method for transmitting information regarding a synchronization status of a neighboring base station, the method comprising the steps of:

determining, by a first base station, the synchronization status of the neighboring base station;

transmitting a neighbor list message to a remote unit based on the synchronization status, the neighbor list message comprising a group identification code (GIC) corresponding to the neighbor base station, wherein the GIC indicates a spreading code group to which a spreading code utilized by the neighbor base station belongs.

6. The method of claim 5 wherein the step of transmitting further comprises the step of transmitting a time offset based on the synchronization status of the neighboring base station.

7. The method of claim 5 wherein the step of transmitting further comprises the step of transmitting a spreading code utilized by the neighbor base station, wherein the spreading code is determined based on the synchronization status of the neighboring base station.

8. A method for transmitting information regarding a synchronization status of a base station in a Code Division, Multiple Access (CDMA) communication system, the method comprising the steps of:

determining if the base station is operating in a synchronized mode or an unsynchronized mode to produce a synchronization determination;

determining a spreading code based on the synchronization determination;

spreading modulated data with the spreading code; and

transmitting a first group identification code (GIC) to a remote unit if the base station is operating in the synchronized mode, otherwise transmitting a second GIC to the remote unit if the base station is operating in the unsynchronized mode, wherein the GIC indicates a spreading code group to which the spreading code utilized by the base station belongs.

9. The method of claim 8 wherein the step of transmitting the first and the second GIC comprises the steps of:

periodically masking the spreading code with a second spreading code; and

transmitting the first or the second GIC during a time period when the first spreading code is masked by the second spreading code.

10. The method of claim 8 wherein the step of determining the spreading code further comprises the step of determining the spreading code wherein the spreading code is a time shifted version of a single spreading code if the base station is synchronized, otherwise the spreading code is a spreading code chosen from a plurality of spreading codes.

11. An apparatus for transmitting information regarding a synchronization status of a base station in a Code Division, Multiple Access (CDMA) communication system, the apparatus comprising:

a controller for determining if the base station is operating in a synchronized mode or an unsynchronized mode and outputting a synchronization determination; and

spreading circuitry, coupled to the controller, for spreading modulated data with a spreading code, the spreading code determined based on the synchronization determination; and

switching circuitry for switching between a first group identification code (GIC) and a second GIC based on whether the base station is operating in the synchronized or the unsynchronized mode, wherein the GIC indicates the spreading code group to which the spreading code utilized by the base station belongs.

12. The apparatus of claim 11 further comprising masking circuitry for periodically masking the spreading code with a second spreading code.

13. The apparatus of claim 11 wherein the spreading code is a time shifted version of a single spreading code if the base station is synchronized, otherwise the spreading code is a spreading code chosen from a plurality of spreading codes.